

REMARKS

Claim 27 is canceled herein, and claims 1, 12 and 19 are currently amended. Claims 1-26 and 28 are therefore pending in this application. In the Office Action dated March 18, 2004, the Examiner provisionally rejected claims 1-2, 5-13, 17-20 and 24-28 under 35 U.S.C. § 101 on grounds of potential double patenting over co-pending Application No. 10/272,230. The Examiner also provisionally rejected claims 3-4, 14-16 and 21-33 for obviousness-type double patenting, over co-pending Application No. 10/272,230 in view of U.S. Patent No. 4,273,289 to Jette ("Jette"). Claims 1-6 and 12-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Jette. Claims 1-2, 5-6 and 10-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,035,004 to Hengesbach ("Hengesbach"). Claims 1-2, 5-6, 10, 12-13 and 17-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,409,103 to Norville et al. ("Norville"). Claims 3-4 and 14-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Norville in view of Jette. Claims 7-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Norville in view of U.S. Patent No. 6,443,332 to Costea ("Costea"). Claims 19-20 and 24-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,803,360 to Spitznagel ("Spitznagel") in view of Norville. Finally, the Examiner rejected claims 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Spitznagel in view of Norville, as applied to claim 19, and further in view of Jette.

Applicants submit that the present amendment and following remarks overcome or rebut these grounds of rejection. Reconsideration of the invention is therefore respectfully requested in light of the present amendment and following remarks.

The disclosed embodiments will now be discussed in comparison to the prior art. It is understood, however, that the following discussion of the disclosed embodiments, as well as the discussion of the differences between the disclosed embodiments and the prior art subject matter do not define the scope or interpretation of any of the claims. Instead, such discussed differences are offered merely to help the Examiner appreciate important claim distinctions as they are discussed.

Applicants Disclosure v the Cited Art

Applicants disclose a swivel assembly for interconnecting a gravity feed liquid supply vessel to a spray gun applicator device. The spray gun device includes a dispenser assembly (e.g., a trigger) to activate a flow of fluid from the supply vessel, through the swivel assembly, which is coupled between the supply vessel and the applicator device, and out to a nozzle. The swivel assembly includes a first engagement member having a protruding portion and a first passageway disposed therethrough, and a second engagement member having a concavity and a second passageway disposed therethrough. The first passageway of the first engagement member and the second passageway of the concavity each have interior walls defining a fluid conduit through which the fluid flows in direct contact with the interior walls. The first engagement member with the protruding portion is moveably engaged within the concavity so that the gravity feed supply vessel is rotatable in any direction with respect to the spray gun applicator while maintaining the nozzle and the dispenser in a fixed orientation with respect to one another.

Applicants' invention allows the nozzle and dispenser portions to be maintained in a fixed orientation relative to one another while the supply vessel is pivotally rotatable in any direction, for example, rotatable along a pitch, yawl and/or roll axis relative to the direction defined by the flow of fluid out of the nozzle. Thus, with Applicants design, the spray gun can be tilted upward, for example to paint a ceiling, or tilted downward, for example to paint a floor, or moved from side to side, for example to paint a wall, or even tilted on its side, for example to paint a wall section close to the floor. In any case, the supply vessel can be rotated relative to the dispenser and nozzle so that the flow of fluid from the supply vessel will remain constant and moreover, the liquid in the supply vessel will not spill because by pivotally rotating the supply vessel with respect to the nozzle and dispenser, the absolute orientation of the supply vessel relative to true can be maintained.

Jette relates to a swivel assembly for a shower head, which is not remotely similar to a spray gun applicator device and is certainly not gravity fed. There is no container pivotally coupled to the shower head. Rather the shower head receives a flow of liquid from a pipe and ultimately from a supply vessel such as a water heater. The arrangement of a shower with respect to the water heater does not have any of the problems of a spray gun applicator with

respect to movement of the water heater with respect to the shower head because the water heater remains fixed in position. Moreover, the relative position of the water heater with respect to the shower head does not encumber the facility of using the shower head as in the case of a gravity feed spray gun. Moreover, movement and positioning of a shower head does not involve holding in position a substantial torque load such as occurs when liquid in a supply container of a spray gun is tilted relative to the axis of flow of fluid, because a shower head is relatively light weight and has a constant load around its perimeter regardless of the direction it is pointed.

Hegensbach does teach or suggest a gravity feed liquid supply container and does not have the problems associated therewith. Hegenbach teaches a positive pressure spray gun container. The container C is positioned below the dispenser and nozzle. Positive pressure is applied from an air compressor downward to the liquid which is then urged upward through a hose B through the dispenser and nozzle. Between the container and the dispenser, Hegenbach describes two ball and socket assemblies X and Y and an interconnecting passageway I. The purpose of the ball and socket assemblies of Hegenbach is to provide a spray gun apparatus whereby the nozzle and dispenser can be moved in any direction relative to the container while the container remains in a stationary position. This is opposite in concept to Applicants apparatus that allows the container to be moved relative nozzle and dispenser. Moreover, the device described by Hengesbach is not a structure where the passageways of the first ball and socket X, the interconnecting passage I and the second ball and socket Y each have interior walls defining a fluid conduit, whereby fluid flows through the fluid conduit in direct contact with the interior walls. Instead, the conduit for conducting fluid flow through the ball and socket assembly of Hengesbach is a flexible tube 10 that runs through the ball and socket assembly and ultimately into the container C.

Norville also does not disclose a gravity feed spray gun nor a device whereby the container is rotatable in position leaving the nozzle and dispenser in a fixed orientation with respect to one another. Norville, like Hengesbach, discloses a positive pressure dispenser apparatus because the container is Norville is a bottle that is positioned below the dispensing trigger. Activation of the dispensing trigger pumps air downward into the bottle and urges fluid upward and out of the nozzle. Like Hengesbach, the nozzle assembly of Norville is rotatable in any direction with respect to the container, the container is not rotatable with respect to the

dispenser as in Applicant's embodiments. Moreover, even if one held the nozzle in a constant position and rotated the bottle around the swivel assembly of Norville, the dispenser and nozzle would change orientation with respect to one another because the dispenser is not rotatably attached to the container. For example, if the bottle of Norville were rotated 180 degrees around the horizontal axis of the swivel assembly, the trigger (dispenser) would be upside down (change positions) relative to the nozzle.

Costea, like Norville and Hengesbach, also discloses a positive pressure bottle and fails to disclose a gravity feed liquid supply vessel. Costea also fails to disclose a swivel assembly for pivotally coupling the bottle and the dispenser so that the gravity feed supply vessel is rotatable in any direction with respect to the spray gun applicator while maintaining the nozzle and the dispenser in fixed position with respect to one another. Costea merely discloses a rotatable cap assembly 14 positioned over the outlet end of a supply tube so that when rotated in one position, the outlet end is closed and when rotated in another position the outlet end is open. The purpose of the rotatable cap of Costea is to avoid loss of a liquid prime on the outlet tube by sealable closing the outlet end by rotation of the cap. The Examiner characterized the rotatable cap of Costea as a ball and socket swivel having a recessed portion for receiving a tapered portion of the outer wall of the second engagement member. However this feature is not relevant to a rotatable swivel assembly that permits the container to be rotated while leaving the nozzle and dispenser in fixed position relative to one another and therefore does not cure the deficiencies of Jette, Hengesbach or Norville in this regard.

Spitznagel, as the Examiner recognizes, also fails to disclose a swivel fitting having a first member with a protruding portion having a spherical shape and being rotatable and pivotable within concavity of a second member that receives the spherical portion. Spitznagel discloses is a swivel assembly comprised of two banjo fittings 38 and 24 for attaching a fluid cup to a spray gun. One of the banjo fittings (38) allows the fluid cup to be rotated about an "offset axis" (a roll axis) that is perpendicular to the fluid cup axis. The other banjo fitting (24) presumably would allow the spray gun to be rotated about a yaw axis, however, this is not relevant to the purpose of the device. The purpose of the device is to provide rotation about the offset axis so that the spray gun may be positioned on its side while keeping the fluid cup in an upright position so that the user can paint a lower portion of an automobile without tilting the

spray gun causing spillage from the cup, as illustrated in Figure 4. There is nothing in Spitznagel that would permit the fluid cup to be tilted about a pitch axis, as with the pivotal concavity and spherical swivel assembly of Applicants device. Moreover, tilting the fluid cup about a pitch axis would increase the likely hood of spillage frustrating the purpose of the Spitznagel design.

The claims and the rejections thereof

Turning now to the claims and the rejections thereof, Applicants respectfully submit that the amended claims have overcome the Examiner's rejections on grounds of anticipation or obviousness and/or that the following arguments rebut the Examiner's rejections on grounds of obviousness.

More specifically, each of independent claims 1, 12 and 19 have been amended to recite in pertinent part that: (1) the device is a spray gun applicator device; (2) the supply vessel is a gravity feed supply vessel; (3) with respect to the passageways, the first passageway of the first engagement member and the second passageway of the concavity each having interior walls defining a fluid conduit, and (4) whereby fluid flows through the fluid conduit in direct contact with the interior walls and whereby the gravity feed supply vessel is rotatable in any direction with respect to the spray gun applicator while maintaining the nozzle and the dispenser in a fixed orientation with respect to one another. The elements emphasized by the underlining are not disclosed in a single reference, and one of ordinary skill in the art would not be motivated by the cited combination of references to combine these elements with the other elements of the claims in the manner claimed by the applicant.

Jette relates to a swivel assembly for a shower head, which is not a spray gun applicator device, and is not gravity fed. As discussed above shower head that receives a flow of liquid from a water heater does not have any of the problems of a spray gun applicator with respect to movement of the supply vessel with respect to the nozzle because a remotely located water source does not encumber the facility of using the shower head as in the case of a gravity fed spray gun. Accordingly, withdrawal of the rejection of claims 1-6 and 12-18 on grounds of anticipation over Jette is requested.

Similarly, the container in the spray gun apparatus disclosed by Hegensbach does include a gravity feed supply container and does not have the problems associated therewith. As

discussed above, the container device disclosed by Hengesbach is a positive pressure device. In addition, the objective of Hegenbach is to provide a spray gun apparatus whereby the dispensing head can be moved leaving the container in a stationary position, which is opposite in concept to an apparatus that allows the nozzle and dispenser to remain in a fixed oreintation while pivotally rotating the gravity feed supply container in a variety of directions as in Applicants' invention. Moreover, the ball and socket assembly described by Hengesbach is not a structure where the first passageway of the first engagement member and the second passageway of the concavity each have interior walls defining a fluid conduit, whereby fluid flows through the fluid conduit in direct contact with the interior walls. Instead, the conduit for conducting fluid flow through the ball and socket assembly of Hengesbach is a flexible tube that runs through the ball and socket assembly. Applicants' embodiments do not require such an extra tube because the passageways of the first and second engagement members are contiguous and liquid tight so that the fluid may flow in direct contact with the interior walls of the passageways of the first engagement member and the concavity. Accordingly, withdrawal of the rejections of claims 1, 2, 5, 6, and 11 as anticipated by Hengesbach is requested.

Norville also does not disclose a gravity feed spray gun nor a device whereby the container is rotatable in position using the swivel assembly while keeping the nozzle and dispenser in a fixed orientation with respect to one another. As mentioned above, Norville, like Hengesbach, discloses a positive pressure dispenser apparatus whereby the nozzle is rotatable in any direction with respect to the container, which is opposite in concept to Applicants' embodiments. Moreover, even if the container of Norville were rotated with respect to the nozzle keeping the nozzle in a fixed orientation, the dispenser and nozzle would change orientation with respect to one another because the dispenser is not attached to the container through a rotatable swivel. Accordingly, withdrawal of the rejection of claims 1, 2, 5, 6, 10, 12, 13, 17 and 18 as anticipated by Norville is requested.

The deficiencies of Norville and Jette alone are not overcome by their combination. Neither reference discloses the ability or suggests the need to rotate the container while keeping the nozzle and dispenser in a fixed orientation with respect to one another. Therefore the combination of references fails to teach or suggest all the elements of the claims. Moreover, as discussed in more detail below, Jette is non-analogous art, so one of ordinary skill

in the art of spray gun design would not look to shower heads for a solution to a problem present with spray guns that is altogether absent from shower assemblies. Accordingly withdrawal of the rejections of claims 3, 4 and 14-16 as obvious over Norville and Jette is requested.

The deficiencies of Norville are also not overcome by the combination with Costea, which is related to a rotatable cap. Costea is also silent about rotating a gravity feed supply vessel while maintaining the position of the nozzle and dispenser in a fixed orientation with respect to one another. Costea was merely cited for showing the tapered portion of a rotatable socket and a recessed portion of a ball. However, the Examiner provided no motivation to combine Costea with Norville, rather the Examiner merely asserted that it would be obvious to do so. Such an assertion does not establish a *prima facie* case of obviousness. Applicants also cannot imagine any advantages to be gained by combining Costea with Norville that would motivate one concerned with the rotatable nozzle of Norville to look to Costea for any reason. In addition, because of the deficiencies of Norville alone, the combination with Costea fails to teach or suggest all the elements of the claims. Accordingly withdrawal of the rejections of claims 7-9 as obvious over Norville and Costea is requested.

As the Examiner recognizes, Spitznagel fails to disclose a swivel fitting having a first member with a protruding portion having a spherical shape and being rotatable and pivotable within concavity of a second member that receives the spherical portion. Norville was cited for teaching the rotatable concavity and spherical members. The motivation asserted by the Examiner for combining Spitznagel with Norville is to provide the painting cup of Spitznagel with three degrees of freedom instead of two, and to reduce the number of machined components required for the fitting. Applicants disagree with this assertion on several grounds.

First, to accomplish the goals of the device described by Spitznagel, the painting cup of Spitznagel need only be rotatable about a single axis 66. Inspection of Figures 3-5 of Spitznagel and the accompanying text at column 3 lines 1-23, reveals that the fluid cup is rotatable about axis 66 defined therein as the "offset axis" (i.e., rotation about a roll axis). This is also true for the other embodiments described by Spitznagel. Although the assembly of Figure 2 is also rotatable about the vertical axis running through banjo fitting 24, such rotation would merely result in changing the fore and aft position of the spray cup relative to the spray gun plane 62 (i.e., be rotation about a yaw axis). Rotation about this axis is not even mentioned by

Spitznagel, presumably because it is not a necessary function to accomplish the goals of the device. The goal of the device is to allow the spray cup to remain in a vertical orientation when the spray gun is rotated about the offset axis relative to the cup to prevent spillage from the cup. Providing an additional axis of rotation (i.e., rotation about a pitch axis) would result in tilting the spray cup off the vertical orientation, increasing the chance of spillage and thereby frustrating the goal of Spitznagel. Accordingly, one of ordinary skill would find that if anything, Spitznagel teaches away from providing an additional rotation about the pitch axis because such rotation would frustrate the goals of Spitznagel.

Second, as the Examiner is aware, there must be a teaching or suggestion in the prior art itself, that would provide the a motivation for one of ordinary skill in the art to combine references. The Examiner has asserted a motivation to provide rotation about three degrees of freedom, not the prior art. There is no teaching or suggestion in Spitznagel that would motivate one of ordinary skill in the art to provide the painting cup with more than two degrees of rotation. Moreover, the text of Spitznagel only describes embodiments rotatable about a single axis, i.e., the offset axis. It would have been simple for Spitznagel to also describe rotation about the yawl axis if that were deemed important, and to further include an additional banjo fitting to make the paint cup rotatable about a pitch axis if that was desirable. However, as mentioned above, rotation about the yawl axis does not provide additional functionality for the objectives of Spitznagel and providing an additional rotation about the pitch axis would NOT be desirable because that would tend to increase the chance of spillage.

Third, assuming *arguendo* that one of ordinary skill in the art found some *inventive* motivation to provide the Spitznagel device with an additional degree of rotation, such a person would not be motivated to use the rotatable nozzle assembly of Norville. The device described by Spitznagel, includes tightening thread and nut components 28 and 46 (Figure 2) and 84 and 86 (Figure 7) to tighten the paint cup in position. One of ordinary skill in the art would believe this to be necessary because the weight of liquid in the paint cup would make the cup heavy. In contrast, the rotatable nozzle assembly of Norville bears only the weight of the nozzle, clearly envisioned therein to be a lightweight plastic nozzle. The rotatable assembly in Figure 5 of Norville does not include any means for tightening the nozzle into a given position.

Therefore, one of ordinary skill in the art would not be motivated to look to Norville for a means to provide the device of Spitznagel with an additional degree of rotation for a fluid supply vessel.

The deficiencies of Jette were discussed above. Jette does not cure the deficiencies of Spitznagel and Norville. In addition, Jette is non-analogous art. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of Applicants endeavor, or if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oeitikar* 177 F.2d 1493, 1446 (Fed, Cir 1992). Jette is neither. Jette is related to shower heads, while Applicants endeavor is in the field of spray guns. In addition, the problem of holding a shower head in position is not reasonably pertinent to Applicants problem because the shower head of Jette does not have a substantial weight of fluid filled container for a spray gun.

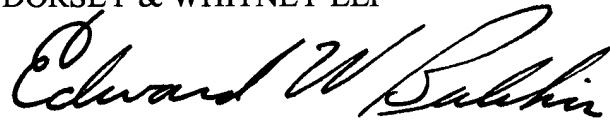
Accordingly, Applicants respectfully submit that the Examiner has not established a *prima facie* case of obviousness because there is motivation in the art to combine Spitznagel and Norville alone or with Jette, or alternatively, that the foregoing arguments have rebutted the same. Therefore, withdrawal of the rejections of claims 19-20 and 24-28 as obvious over Spitznagel in view of Norville, and claims 21-23 as obvious over Spitznagel in view of Norville in view of Jette is requested.

With respect to the rejections for double patenting and obviousness type double patenting, the undersigned hereby declares that Applicants will allow co-pending application No. 10/272,230 to go abandoned in favor of the present CIP application. Accordingly, the provisional grounds of rejection for double patenting and obviousness type double patenting will be moot.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a timely Notice of Allowance are earnestly solicited.

Respectfully submitted,

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Enclosures:

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